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Original article

Increasing Uptake of HIV, Sexually Transmitted Infection, and Family Planning Services, and Reducing HIV-Related Risk Behaviors Among Youth Living With HIV in Uganda

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A B S T R A C T

Purpose: To address barriers to care for youth living with HIV (YLHIV), the Link Up project implemented a peer-led intervention model that provided a comprehensive package of HIV and sexual and reproductive health and rights services through community-based peer support groups for YLHIV. Peer educators delivered targeted counseling and health education, and referred YLHIV to antiretroviral therapy (ART), and reproductive health services that were available at youth-oriented sexual and reproductive health and rights facilities.
Methods: At baseline (October to November 2014), 37 peer support groups for YLHIV were established in Luwero and Nakasongola districts. During this same time period, we recruited a cohort of 473 support group members, aged 15–24 years. After a 9-month intervention period (January to September 2015), we completed the end-line survey with 350 members of the original cohort. Multivariate logistic regression analysis applied to longitudinal data was used to assess changes in key outcomes from baseline to end line.
Results: Multivariate analyses showed significant increases at end line, compared with baseline, in self-efficacy (adjusted odds ratio [AOR]: 1.8 [1.3–2.6]), comprehensive HIV knowledge [AOR: 1.8 [1.3–2.6]), HIV disclosure (AOR: 1.6 [1.01–2.6]), condom use at last sex (AOR: 1.7 [1.2–2.5]), sexually transmitted infection uptake (AOR: 2.1 [1.5–2.9]), ART uptake (AOR: 2.5 [1.6–4.0]), ART adherence (AOR: 2.5 [1.3–4.9]), CD4 testing (AOR: 2.4 [1.5–3.6]), and current use of a modern contraceptive method (AOR: 1.7 [1.1–2.7]).

IMPLICATIONS AND CONTRIBUTION

Our study findings suggest that the Link Up's peer-led intervention model was effective at reaching Ugandan YLHIV and likely contributed to improvements in behavioral and clinical outcomes.

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Conclusions: Link Up's intervention strategy likely contributed to observed increases in self-efficacy, knowledge of HIV, condom use, HIV disclosure ART utilization and adherence, CD4 testing, STI testing uptake, and use of modern family planning methods. This model shows promise and should be adapted for use among YLHIV in similar settings and evaluated further.

Efforts to prevent HIV transmission have shown substantial success among adults. However, youth between the ages of 15 to 24 years face considerable challenges; it is estimated that one-third of all new HIV cases worldwide now occur among 15- to 24-year-olds [1]. Moreover, the increased availability of antiretroviral therapy (ART) has dramatically extended life spans, and many children who were born with HIV are now beginning to transition into adolescence and adulthood. An estimated 2.1 million youth from low- and middle-income countries now live with HIV [2].

Despite broad improvements in long-term HIV-related health outcomes, global HIV-related mortality among adolescents has tripled since the year 2000; it is now the second-leading cause of death among 10- to 19-year-olds [3]. The problem is most critical in Eastern and Southern Africa, where 61% of all youth living with HIV (YLHIV) currently reside [4]. As with most countries in Sub-Saharan Africa, the HIV epidemic in Uganda is generalized, and national prevalence is estimated at 7.3% [1,5]. Of the 1.5 million people living with HIV in Uganda, 170,000 are between the ages of 15 and 24 years, and the disease affects young women over twice as frequently (4.9%) as young men (2.1%) [5,6]. Between 2005 and 2013, HIV incidence in Uganda increased by 21%, and rate of new HIV infections among 15- to 24-year-olds is among the highest in the world [1].

Recent studies from Uganda illustrate that YLHIV wish to lead their lives just like any other young person. They want to have boyfriends or girlfriends, enjoy healthy sex lives, and eventually many want to have healthy children [7–9]. Nevertheless, many gaps remain in the care and support services available to HIV-positive adolescents. Program planners and health care providers frequently neglect the needs and desires of these young people, and many have outgrown pediatric services but do not yet feel comfortable in existing adult services [7]. So, even as access to ART continues to improve, poor adherence remains common among youth [10,11], which may impede viral suppression, lead to treatment failure, and undermine the effectiveness of ART, not only for improving the health of the recipient, but also for preventing further HIV transmission [11–14].

Compounding this problem, Ugandan YLHIV often lack respectful and trustworthy sources of information. As a result, many YLHIV do not have a comprehensive understanding of HIV transmission and often lack strategies for safely navigating their nascent romantic and sexual relationships. Consequently, many engage in behaviors that accelerate sexually transmitted infection (STI) and HIV transmission [7,15].

Young women living with HIV—who comprise the majority of YLHIV—have even more complex needs. While most desire children in the future, many wish to delay pregnancy [7]. However, a recent survey showed that approximately one-third of young women living with HIV in Uganda (ages 15–24 years) were not using a modern family planning method, despite wanting to delay childbearing [8]. Another study found that 43% of pregnancies among HIV-positive mothers were either mistimed or unintended; unintended pregnancies account for 21.3% of neonatal HIV infections [16].

Given this context, it is not sufficient that programs designed to support HIV-positive youth address only their immediate HIV-care needs. Rather, they should employ an age-appropriate and holistic approach that includes their broader sexual and reproductive health and rights (SRHR) [9]. These programs must also address structural barriers to care-seeking, including stigma, transportation costs, and health care staff and supply shortages. Staff inexperience with adolescents may further impede ART adherence and retention among youth living with HIV [17]. Link Up, a global consortium led by the International HIV/AIDS Alliance, intends to meet the diverse needs of YLHIV by offering comprehensive HIV and SRH services, and creating linkages and referrals between SRH and HIV services in community- and facility-based programs. This article examines the effectiveness of this Link Up intervention model among YLHIV in Uganda. Our findings contribute to an evidence base that can guide future interventions for YLHIV in Uganda and similar contexts.

Methods

Description of the intervention

The support and influence of peers are essential to YLHIV because this type of support can reduce perceived stigma, mitigate some barriers to care-seeking, and encourage ART adherence [10,18]. Thus, in Uganda, the Link Up project trained and employed peer educators, to reach YLHIV through informal networks of peer support groups. At support group meetings, the peer educators provided health education and counseling services and created linkages to facility-based HIV and SRHR services. Optimally, support groups met once or twice each month and were safe spaces where YLHIV could openly discuss their needs, concerns, and strategies to lead healthier lives. Link Up peer educators provided health education and counseling services to support groups and to individual group members on topics which included relationships, fertility awareness, safe conception, preventing HIV and STI transmission to sex partners, HIV-related stigma, and the rights of YLHIV.

Link Up followed the human rights framework set forth by the Global Network of People Living with HIV and Joint United Nations Programme on HIV/AIDS [9], which recognizes and emphasizes the SRHR of YLHIV. This is particularly important for YLHIV because ART can greatly reduce the virus in the blood and bodily fluids. Thus, YLHIV who are enrolled in ART and adhere to their treatment regimen have minimal risk of transmitting the virus to their partners. Yet, health care providers do not consistently provide them with this information and often treat YLHIV as though they will always be abstinent. Thus, many YLHIV are not fully aware of their ability to have a fulfilling sex life, nor do they have strategies to avoid transmitting HIV to future partners [7,15].

One of Link Up's goals is to empower young people to seek a comprehensive range of health services. At the outset of the